

**Better. Every day.**

## **Get Up and Go – Having Healthy Joints for Life**

### **Objectives**

- Describe the condition, causes and symptoms of Degenerative Joint Disease.
- Explain typical strength declines in the average adult.
- Identify three types of exercise that are essential for maintaining healthy joints.
- Describe several precautions prior to beginning an exercise program.
- Discuss other options that are beneficial in maintaining healthy joints.

### **Degenerative Joint Disease**

- Chronic degenerative disorder affecting the cartilage of the joints
- Cartilage loses its ability to withstand stress and deteriorates
- Causes may be due to injury from a major stress or repeated minor stresses
- Most common joints affected are weight bearing joints such as hips and knees, cervical and lumbar spine, fingers and thumb
- Characterized by brief periods of stiffness with inactivity or pain with excessive activity
- Activity must be selected to reduce excessive stress on joints to prevent or decrease the progression of disease!

### **Aging**

- Strength declines an average of 1% per year in sedentary adults
- Strength declines are greater when disease such as arthritis is present
- Strength still decreases in physically active individuals but the magnitude is less in comparison to sedentary adults
- There is potential to improve cardiovascular fitness, strength, flexibility and balance with exercise!

### **Three Types of Exercise**

- Aerobic exercise
- Resistance training or muscle strengthening
- Flexibility and range of motion

### **Precautions**

- Discuss participation in exercise program with physician prior to participating
- Exercise should not increase pain during or following the activity!
- When arthritis is present, exercise of an inflamed or swollen joint should be delayed until these symptoms subside
- When arthritis is present, alternate activity with periods of rest
- Exercise needs to be performed regularly!

### **Aerobic Exercise**

- Aerobic training can decrease the risk associated with heart disease and diabetes while improving overall health
- Recommended exercise is walking, biking, swimming or aerobic pool exercises

### **Resistance Training**

- Muscles are important shock absorbers and help stabilize joints
- Strength training helps to reduce the normal loss in muscle mass and strength that occurs with normal aging

### **Flexibility and Range of Motion**

- Range of motion depends on the function of bone, muscles and other tissues which are affected by arthritis
- Recommended stretches are heel cords, hamstrings and hip flexors

### **Other Options**

- Overweight individuals should lose weight to reduce joint loading
- Maintain an appropriate weight
- Avoid prolonged standing, kneeling or squatting
- Assistive devices may be helpful to reduce joint force such as a cane, walker or crutches
- Heat or cold may reduce symptoms
- Cold can be used with an acute injury (24-48 hours after an injury) for 15 minutes at a time, 3-4 times a day. Cold can be used after a strenuous work out to relieve muscle aching. Do not apply cold directly to skin (use a cold pack in pillow case).
- Heat can be used for a chronic injury for 15-20 minutes at a time. Moist heat is preferable. Do not sleep with a heating pad! Do not apply heat if there is poor circulation or sensation!
- Balance exercise can improve stability and strength
- Practice proper posture at home and at work to protect body

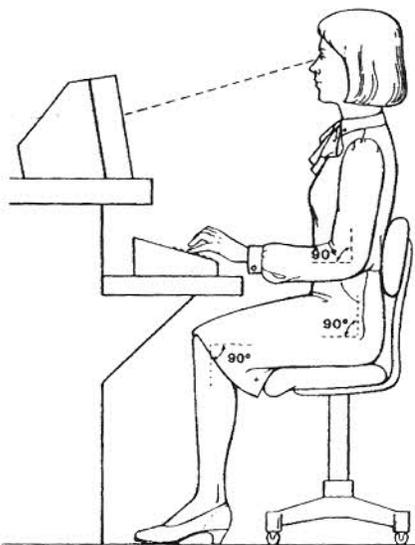
**Get up and go! There are many things that can be done to maintain a healthy lifestyle and have healthy joints for life!**

### **References**

- Allen Colby, L, Kisner, C: Therapeutic Exercise Foundations and Techniques.
- Guccione, A: Geriatric Physical Therapy.
- Rakel, D: Integrative Medicine.

# I want to learn more about:

## Computer Ergonomics



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### **Proper Posture**

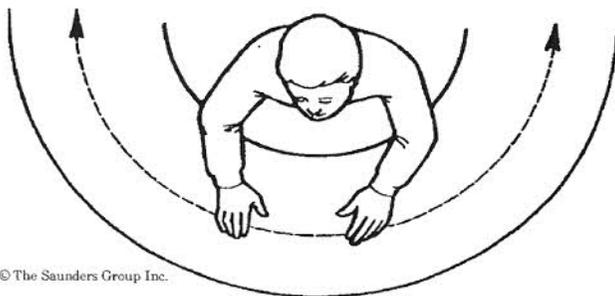
Sitting with proper posture is one of the best things you can do to prevent back and neck problems. Neutral (good) posture involves sitting with the head over the shoulders, shoulders back and relaxed and lower back supported with a slight inward curve.



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### **Proper Height Adjustment of Portable Workstations**

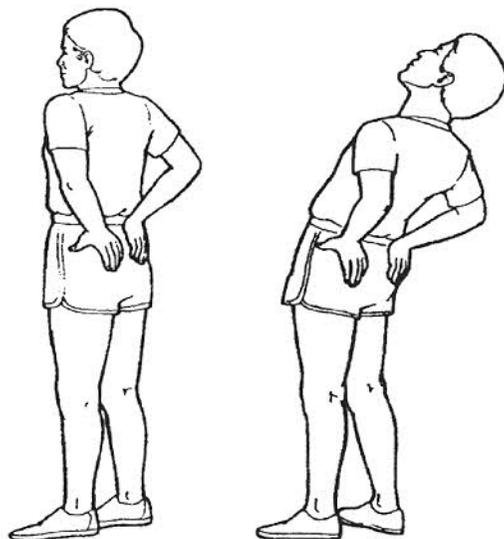
Don't slump. Adjust the height of your portable work surface to allow for proper posture with a slight inward curve in the lower back and the hands at about elbow height.



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### **Good Workplace Design**

Don't work with outstretched arms. Frequently used items should be arranged on your work surface within an arms reach.



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### **Reverse Stressful Positions**

Backward bend throughout the day especially after prolonged sitting or forward bending.



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Provided by : Gwen Moe



1. Sit on floor with towel or strap around foot as shown
2. Pull top of foot toward your body so that you feel a stretch
3. Hold 30 seconds
4. 3 repetitions, 1 time per day

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1. Lie on back holding leg with towel as shown
2. Keep the opposite leg straight on the floor
3. Hold 30 seconds
4. 3 repetitions, 1 time per day

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1. Assume position shown, with knee on chair, holding on for balance
2. Bend the opposite knee so that you feel a stretch
3. Do not allow your low back to arch
4. Hold 30 seconds
5. 3 repetitions, 1 time per day

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1. Stand, holding on to stable surface for support if needed
2. Lift one leg and balance on one leg as able using arm for support if needed
3. Hold position up to 30 seconds